

**Task Order No. 03**  
**Contract No. PCE-1-00-96-00002-00**

# **United States-Asia Environmental Partnership**

## **Five-Year Review**

### **Notes for the USAID Administrator**

By  
Amit Bando, Principal Investigator  
David Angel, Review Panel  
Richard Blue, Review Panel  
Kurt Fischer, Review Panel  
George Heaton, Review Panel  
Lyuba Zarsky, Review Panel

June 30, 1997

For USAID/ANE/US-AEP  
Richard Sheppard

Environmental Policy and Institutional Strengthening Indefinite Quantity Contract (EPIQ)  
*Partners:* International Resources Group, Winrock International, and Harvard Institute for International Development  
*Subcontractors:* PADCO, Management Systems International, and Development Alternatives, Inc.  
*Collaborating Institutions:* Center for Naval Analysis Corporation, Conservation International,  
KBN Engineering and Applied Sciences, Inc., Keller-Bliesner Engineering, Resource Management International, Inc.,  
Tellus Institute, Urban Institute, and World Resources Institute.

# Contents

Executive Summary .....	iii
1. Approaching the Partnership .....	1
2. Trends .....	3
3. Strategy .....	5
4. Assessment and Recommendations .....	7
5. Expansion .....	11
6. A Caution .....	13
7. Development Assistance .....	15



## Executive Summary

The Agency for International Development (USAID) authorized a *Five Year Review* of the United States -Asia Environmental Partnership (Partnership) in January, 1977. The findings are reported in an independent study entitled: ***United States-Asia Environmental Partnership: Turning Point***. The *Review* confirms the continuing relevance and importance of the founding premises for the Partnership, notes favorably the breadth of Partnership ambition, and suggests that the initiative has significant potential to promote Asian and United States development, economic, and environmental interests. The initiative is widely visible in both Asia and the United States, with a growing reputation in development and commercial circles. While elements of the Partnership can obviously be replicated, the *Review* suggests the initiative is significantly more than the sum of its parts, reflecting important development ideas and opportunities. Thus, care should be taken to ensure that its implementing modalities alone do not define its content and promise. Most significantly, the *Review* recommends that the technology transfer component of the initiative be redirected to reflect a larger understanding of the development opportunity and develop a more engaging, cooperative approach—emphasizing the development potential of the industrial technology requirements in Asia and the advantages of cooperative engagement. Further, this expanded approach must be supported by a significant policy development, analysis, and information component. Without these dimensions, the ambition for a “clean revolution” and the appeal to partnership will be difficult to realize.



# 1. Approaching the Partnership

Environmental resources are fundamental to development. The reversal of environmental degradation and depletion of environmental resources is essential if economic growth is to be sustained. This principle represents a major break with the view that economic development can tolerate the limitless consumption of environmental resources. Environmentally sustainable growth is now widely accepted as the goal for international and regional economies, with the twin objectives of economic development and improvements in environmental quality. The Partnership reflects this fundamental understanding of development, emphasizing the point that the major consumers of environmental resources and producers of environmental damage and pollution is manufacturing industry—in most places the bedrock of economic activity.

The Partnership further emphasizes the probability that the world's environmental future will be determined in significant part by what happens in the rapidly modernizing countries - especially in Asia and Latin America - where economic and population growth and environmental stress are converging most forcefully. Yet, it is also be important to keep in the forefront that the current burden on the global environment is mainly a product of the richest 20 percent of the world's population, which consumes roughly 80 percent of world resources and generates 75 percent of world pollution. In this very important sense, the world's environmental future will be determined by the combined activity and interaction—*partnership*—between the developed and modernizing countries.

In principle, environmental stress could be reduced by slowing economic growth, limiting population expansion, or improving the environmental quality of industrial production. In fact, the third option is the most viable. Demographic momentum suggests a doubling of global population by the mid-21st century, and economic growth is needed to meet the aspirations of most countries. The Partnership is correct in its understanding that these realities leave technological transformation—what it calls a “clean revolution”—as the primary strategy for assuring sustainable growth. This suggests the widespread, continuing development and adoption of ever less-polluting and more resource-efficient processes, products and services. Technological change has contributed most to the expansion of wealth and productivity. Properly channeled, it could also hold the key to environmental sustainability. Political leaders in the decades ahead will face no greater challenge than reconciling the competing demands for economic growth and environmental quality. Reconciling these demands will be possible only through a shift in technology, unprecedented in scope and pace, to new technologies that dramatically reduce environmental impact per unit of prosperity — the Partnership is appropriately ambitious.

Drawing on these premises, and recognizing that the developed countries are the primary source of technology for both economic growth and environmental improvement in the modernizing countries, the Partnership addresses itself to both development and technology transfer goals. The aggressive promotion of these twin goals has paid high public dividends to the Agency.



## 2. Trends

There are existing factors and important trends re-enforcing the circumstances necessary to bring about the required technological transformation. These are at work in both developed and modernizing countries - fueled particularly by the private sector and increasingly apparent in Asia. In particular, four stand out:

- Technologies that reduce environmental problems while increasing economic productivity exist; for example, emerging revolutions in advanced materials and biotechnology, along with similar spectacular advances in information technologies and miniaturization, can provide radically new products and processes that harmonize environmental and economic objectives. The United States is the most open technological system in the world, suggesting an enormous competitive advantage in the emerging environmental and technology markets among modernizing countries.
- As a result of staggering pollution levels and the diversity of environmental concerns, regulatory and public pressures are becoming stronger and more powerful worldwide. More important, environmental considerations are entering the marketplace more forcefully as even investors and insurance companies are incorporating environmental issues into their policies. Together, these factors are promoting a trend towards a “greening of industry.”
- Increasing involvement of both developed and modernizing countries in international markets and the growing international movements of goods, services and capital distinguish the current economic regime. A wide range of pro-environmental pressures are emerging in the global marketplace, re-enforcing the trend towards the “greening of industry.” American multinational corporations are at the forefront of this global trend as they promote corporate and environmental norms worldwide. Asia’s export-orientation makes it uniquely receptive to these pressures—its assertive response to IS 14000 guidelines is an example.
- The Partnership directs attention to the remarkable probability that most countries in Asia have yet to install 80 percent of the industrial capacity they will have in the year 2010. If this new capacity is built up with clean industrial technologies, optimism about the world’s environmental future is in order. It is promising that every key industrial agency or ministry in Asia today has an environmental protection department.





### 3. Strategy

The strategy for building on the above trends is based on two key elements:

- Rework the industrial incentive system in favor of clean production. This suggests: (a) a stringent and predictable environmental regulatory regime that also encourages voluntary action and accountability, (b) an industrial regime which includes environmental performance as an important goal, and (c) government action to deepen and broaden the pro-environmental pressures emerging in the global marketplace.
- Change the approach to technology, in both the developed and modernizing countries. In the modernizing countries, it will be important to introduce public policies which encourage innovation and which build long-term linkages between users and sources of technology. In the developed countries, it will be important to shed the *technology transfer* mindset and to aggressively pursue *technology cooperation*.

Fortunately, the Agency has within its own institutional experience the formula for promoting new ideas and development success - for creating a development *movement*. Interestingly, the greater part of this experience is in Asia, reflected by a fifty year engagement in the region, including the transcendent success of the “green revolution,” the triumph of open-market economics, the “demographic transition” in many countries, and most recently the global movement toward democratic governance.



## 4. Assessment and Recommendations

A new understanding, or appreciation, of the Partnership evolved over the course of the *Review* - the Partnership seen as something more than a set of assistance modalities, and more than an environmental project or export promotion program - rather a broad-based *development initiative* reflecting a mix of important ideas, approaches, activities and capacities. While elements of the Partnership can obviously be replicated, it is significantly more than the sum of its parts. A summary representation would include the following observations:

***The Partnership is directed to an important and contemporary development problem,*** articulating a transcendent goal - a “clean revolution.”

***The Partnership engages a broad range of actors and forces,*** building on worldwide trends promoting improvement in industrial environmental performance.

***The Partnership is committed to creating new professional and institutional linkages,*** relying on the power of private initiative rather than new transfers of aid or capital.

***The Partnership has an established institutional infrastructure,*** following the problem to the outposts of the “clean revolution” in Asia.

***The Partnership is rooted in a regional context,*** reflecting the agency’s fifty-year engagement in Asia.

***The Partnership reflects current trends in global business,*** particularly those pro-environmental trends emerging in the marketplace and reflecting private sector response; and

***The Partnership is increasingly relevant to new directions in international governance,*** taking its clues from President Clinton’s vision of a world community embarking on a course of rapid transformation.

However, the *Review* did find areas where despite its broad visibility and significant success, the promise of the Partnership is insufficiently realized:

***Issue:*** while the Partnership’s analysis of the development problem and opportunity is acute, reaching to both public and private incentives and to both environmental and industrial policy, its policy activities operate with insufficient mandate, budget and leadership. The issue is less one of analysis or insight than institutional support. It is also fundamentally important that the Partnership maintain some systematic way to sustain learning—identifying and promoting the development of high-quality information and research for the continuing improvement of the initiative itself and for its partners on the outposts of the “clean revolution” in Asia.

**Recommendation:** establish a focused activity, possibly a U.S.- Asian Environmental Policy Network, to manage incentive and policy activities and to build international institutional networks. The proposed Network could also be used for forward-intelligence, continuing the intellectual adventurism that has served the Partnership so well to date. Policy activity, which critically complements the Partnership's other activities, should receive the same level of support as the Partnership's trade activities.

**Issue:** while the Partnership's approach to technology transfer is enthusiastically supported by the vendor community for environmental technologies, the Partnership will miss an important part of both the development and trade opportunity if it focuses exclusively on end-of-pipe technologies and on single, point-in-time transactions. Technology can be used to ameliorate environmental problems in two ways. One is to apply technologies proved in the developed countries—by and large, pollution control and remediation. The other is to transform basic industrial processes and products, building-in efficiency and environmental soundness from the outset. Both pathways have merit, and both can link the developed and modernizing world. But a new balance between the two is urgently needed so that generic, long-term transforming solutions gradually replace the wholesale transfer of today's end-of-pipe technology. In fact, industrial process technologies represent a much larger market potential and business constituency than that represented by environmental technologies, and long-term mutually dependent relationships define markets better than the casual or brittle connections between technology providers and users.

**Recommendation:** strengthen trade activities by including clean process technologies as a target and develop a new strategy to build long-term bridges with Asian industry, binding it more directly and permanently within the U.S. economic and technology orbit. The Partnership's very impressive technology representation in the region could be used to good effect in this regard.

**Issue:** while applauding the Partnership's largely successful effort to create new linkages between actors in the United States and between the United States and Asia, it is obvious that the "clean revolution" will require the organization of a *movement* - moving beyond the Partnership's already imaginative ("outside of the box") implementation strategy to more fulsomely engage concepts of enlistment, mobilization, participation, and leverage. An extensive, decentralized approach is the only way to meet the ambitious goals the Agency has set for the "clean revolution" and the region. Indeed, the required strategy is reflected in the Agency's own time-tested experience with the "green revolution," and the "demographic transition." It suggests redefining the Partnership as a *development force*—consciously moving away from the project mode, overcoming the institutional disincentives to movement in that direction (re-enforced by the Agency's current approach to results, its commitment to capacity and institution building, the operational or implementation mindset of most Agency contractors, and the desire of Agency staff itself to be on the front-lines).

**Recommendation:** develop a style which engages partners from Asia and the United States in the development, governance and implementation of the initiative, which favors enlistment over operations, leadership over management, and aggressively rewards every opportunity to privatize Partnership activity and management. In the end, what the Partnership requires is an ever-expanding

number of *adherents* to promote the ideas and technologies underlying the proposed “clean revolution.”



## 5. Expansion

Of course, only the Partnership's implementing modalities can be expanded initially. The idea of a "clean revolution" may or may not fit Latin America, Eastern Europe, or Russia. Clearly, the development context for any expansion must be defined by the circumstances as they present themselves in each region. For example, where the opportunity in Asia is defined by the very rapid build-up in industrial capacity, the opportunity in Eastern Europe will probably be defined by its ongoing integration into Western Europe, and in Russia by its need to rehabilitate or replace an outmoded and environmentally toxic industrial infrastructure. It is also likely that the more important opportunities will manifest themselves regionally rather than nationally. A critical part of the Partnership's success to date has been its sensitivity to regional context, and the Agency should be careful not to vitiate that unique institutional asset in its enthusiasm to expand the initiative. Furthermore, the Partnership concept will probably work best in the emerging markets, what the *Review* understands to include many of the "nonpresence countries"—China, Hong Kong, India, Indonesia, Malaysia, Philippines, Singapore, Korea, Taiwan, Thailand, Argentina, Brazil, Chile, Colombia, Mexico, Venezuela, South Africa, Czech Republic, Hungary, Poland, and Russia.

More specifically:

- The highest priority for expansion should continue to be accorded to Asia, given the scale of the environmental problem there relative to global systems and recognizing that the Asian growth model is the one of choice for most developing countries; within the region, priority should be given to China and Viet Nam, critical lynch-pins to the ambition for a "clean revolution" in Asia.
- Second priority for expansion ought to be given to the scope of the initiative, reconsidering the role for energy and urbanization; in this regard, the *Review* is conscious of the advantages of focussing and the limitations on resources, suggesting that scope could be treated as a conceptual rather than funding element, and that other Agency resources could be associated with the Partnership to cover these areas.
- Foreign partners, not just American regional experts, should be enlisted at the outset to participate in the development, design, and promotion of the proposed *movement* and related activities, this being an admitted deficiency in the early organization of the Partnership; in this regard, it would also be appropriate to engage with Japan as the largest investor, largest provider of technology, and largest bilateral development presence in Asia.
- The Department of State and related foreign policy establishment might usefully be included as a federal partner together with the Department of Commerce and Environmental Protection Agency; this is particularly important given the place of international norms and standards in the emerging new foreign policy direction of the



Clinton administration.

- Development and policy issues should be given a pride of place equal to the trade agenda in any expansion plan—the oldest development lesson being to “get the prices (signals) right;” in this regard, care should be taken that the initiative not be captured by any particular community, environment or trade, but be kept in the mainstream of development concern.
- The business constituency should be enlarged to include the interests of the American engineering, industrial technologies, and multinational business communities in addition to the American environmental technologies sector.
- Information about American industrial and environmental experience, practice and technologies should, together with partnership, be at the core of any successful expansion; information is a relatively underdeveloped part of the Partnership - a part that can clearly draw on the private sector and become itself an important part of the trade strategy; industrial extension is one important way for getting leverage on an information strategy.

## 6. A Caution

While the Partnership is exactly on the right track in its focus on the tension between economic growth and the environment in Asia and on technological change as the main pathway to address it, a caution is raised in the following areas: (1) there are important differences between Asia today and the United States at the dawn of the environmental era - circa 1970. The United States came to environmental awareness as a mature economy with an enormous fixed capital stock and a relatively modest rate of growth. Asia, in contrast, continues to expand faster than any other region, and thus now has less than a quarter of the industrial stock it will have in just two decades from now. This means it can adopt new, cleaner technologies at the outset, rather than retrofit as the United States was forced to do. (2) Asian institutions, policies and interactive styles differ radically from our own. Governments and industry there function often as partners, not adversaries. Coherent industrial policies, increasingly sensitive to environmental requirements, are the norm, and long-term flexible relationships substitute for our more arms-length style. The bottom line is that clones of American policies or industrial approaches do not necessarily suit Asia -and won't be accepted.

There is a tendency among many experts from the developed countries to promote familiar (even if new) ideas, experience and approaches in the developing countries. American experience is based on government-initiated regulations, articulated in a legalistic, highly technical framework, often resulting in best-available-technology requirements for end-of-pipe controls, for which a large, competent enforcement network is assumed. This is neither the Asian style nor within the capabilities of most fast-developing societies. Further, it does not take account of the potential of the build-up in new industrial capacity — indeed, there is a case to be made as well that this strategy is no longer best-suited for the U.S. An initiative like the Partnership must, therefore, search for and assist Asian policy-makers in creating new approaches -with a much greater tolerance for industry initiative, cooperation and the pro-environmental potential of the marketplace, and with a much stronger engagement in the areas of industrial and technology policy. The development professionals within the Partnership's Secretariat and support structure appear sensitive to this direction, but many of its domestic partners -its technical experts -reflect a *policy transfer* mindset over *policy cooperation*.

Further, the kind of technology relationships the Partnership promotes must be consistent with Asian needs. Transfers of environmental technologies that only clean-up or abate pollution are ill-tailored to a situation in which pollution can be, to a larger extent, designed out of new industrial products and processes. Given Asia's rapid growth, this is an opportunity to capitalize on. The United States can as well, but only if gets in early, to assist in product and process design -not if it only sells yesterday's clean-up technology (although clean-up must still be a part of the equation).



## 7. Development Assistance

The *Review* considered the question of American leadership in the post-Cold War situation, and specifically the continuing rationale and role for development assistance. While there are many insightful people addressing the question, there is an important originality of thought within the Asia Bureau at the Agency for International Development. The Bureau has developed a very interesting line of argument, drawing on the directions of the global economy, the emergence of the related new international system and American foreign policy, suggesting that development initiative can be used to work with modernizing and developing nations, hastening their access, membership and participation in the emerging international system.

The approach suggests a new goal or end-game for nation-states in the development process - one that is no longer defined by GDP levels but by adherence to the norms of the new international system. While not suggesting any lessening in the Agency's current commitment to the poorest nations and to crisis prevention, the approach does suggest a continuing important development role among those countries that have graduated from the assistance rolls. This kind of thinking and approach will be fundamentally important in rationalizing a major expansion of the Partnership initiative to other "nonpresence countries" in Latin America and Eastern Europe. A fuller discussion of this point is presented in Attachment A (taken from the report of the Principal Investigator, entitled: *United States-Asia Environmental Partnership: Turning Point*).